



18. How has Michigan handled the decision regarding what entities should construct and own renewable energy (e.g. an incumbent utility, an independent developer, feed-in tariffs)? What has been the practice in other jurisdictions? Has the type of project, cost of project, etc. varied depending on the entity constructing or owning the project?

With the exception of electric providers that had more than one million retail customers in Michigan as of January 1, 2008 (effectively Consumers Energy and DTE Energy), Michigan allows the renewable portfolio credit standard to be met with any combination of utility-owned, power purchase agreement, or renewable energy credit purchases reasonably determined by the electricity provider.

In the cases of the two large electricity providers, Section 33 of 2008 PA295 (MCL 460.1033) essentially provides that not more than 50% of the required renewable energy credits may be obtained from projects owned by the electricity provider and at least 50% of the renewable energy credits must be obtained through renewable energy contracts or renewable energy credit contracts with independent producers. In this context, independent producers could be customers of the electricity provider engaging in cogeneration, net metering, or a feed-in tariff program.

As indicated in EIBC's answer to Renewable Energy Question 30, half of the states with a Renewable Portfolio Standard also allow retail choice competition and require the competitive suppliers to meet the Renewable Portfolio Standard. In these cases, a requirement of third-party ownership is less significant since the various competing suppliers will inherently diversify ownership and create competition; consequently, those states with retail choice competition do not have similar requirements.

A number of states require that a portion of the renewable generation used to meet their Renewable Portfolio Standard include significant amounts of distributed generation. Generally, distributed generation is owned by utility customers or by third-party lessors rather than by utilities, so these requirements also serve to significantly diversify ownership.

Other states have competitive procurement provisions for electricity generation, some of which are directly tied to renewable requirements, but more commonly as general principles of utility regulation. In these states, diversity of ownership arises from the competitive process rather than from an overt requirement like the one in Michigan.

To a close approximation, Consumers Energy and DTE Energy have chosen to obtain close to 50% of their renewable energy credits from projects that they own, indicating that absent this requirement, they would have sought greater than 50% ownership share. Because the "fuel supply" for landfill gas and anaerobic digestion systems are controlled by independent parties, these kinds of projects would

likely have been less likely absent the requirement of independent ownership. The limited amount of dam refurbishment for hydropower also has been done by dam owners and likely would not have been done by the large utilities absent this requirement. The predominance of utility-scale wind in meeting Michigan's Renewable Portfolio Standard is a result of fundamental economics and would not have changed absent the ownership requirement.

The effectiveness of the ownership limitations and competitive procurement provisions 2008 PA295 are addressed explicitly in the Michigan Public Service Commission's annual reports to the legislature on the Renewable Portfolio Standard, the most recent of which was issued in February 2013

(www.michigan.gov/documents/mpsc/implementation_of_PA295_renewable_energy_411615_7.pdf).

Due to the predominance of wind generation in Michigan's portfolio, they based their analysis on wind projects only. The report summarizes their analysis as "The analysis shows that Company-owned projects have been three percent cheaper than similar competitively bid power purchase agreements." This conclusion, however, is based on a direct comparison of the levelized cost of electricity from the various power purchase agreements, company-built projects, and company-purchased projects without adjustments for differing conditions and timing. Power purchase contract terms are 20 years while company-owned projects are amortized over periods between 20 and 30 years; these longer terms favor the utility-owned contracts but the independently-owned projects are unlikely to terminate operations at the end of the initial contract term. Company-owned projects have been developed somewhat later in time than those developed by independent developers and either sold to the companies or operated under power purchase agreements. The same report shows very rapid cost declines for wind developments, as Michigan developers and contractors have gained experience, so that the timing of projects has a significant effect on cost. Further, the companies report as renewable program costs certain expenditures that are not allocated to specific projects but treated as overhead, while those same activities by independent developers must be recovered through contract prices for delivered power. Some of the information that would be required to reanalyze this comparison is proprietary, so the analysis cannot be redone by an outside party. Therefore, it isn't possible at this time to reach a conclusion about the cost-effectiveness of company-built versus independently developed projects.